

Applicants: Elena Feinstein, et al.
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Amendments to the Claims:

Please cancel claims 1-25 without disclaimer or prejudice to applicants' right to pursue the subject matters of these claims in the future.

Pursuant to 37 C.F.R. §1.121(c), this listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-25. (Canceled)

26. (New) A double stranded oligoribonucleotide, wherein one strand comprises consecutive nucleotides having, from 5' to 3', the sequence set forth in any of SEQ ID NOS:25-45 or SEQ ID NO:67 or a homolog thereof and wherein a base is altered in up to 2 of the nucleotides in each terminal region.

27. (New) A vector comprising an oligoribonucleotide of claim 26.

28. (New) A composition comprising an oligoribonucleotide of claim 26.

29. (New) A composition comprising a vector of claim 27.

30. (New) A method of treating a neurodegenerative disease in a subject which comprises administering to the subject a therapeutically effective amount of a pharmaceutical composition comprising a BMP2A inhibitor so as to thereby treat the subject.

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31. (New) The method of claim 30, wherein the pharmaceutical composition comprises an oligoribonucleotide which down regulates the expression of the BMP2A gene by at least 50% as compared to a control.
32. (New) The method of claim 30, wherein the BMP2A inhibitor is an antisense oligonucleotide.
33. (New) The method of claim 30, wherein the BMP2A inhibitor is a BMP2A siRNA.
34. (New) The method of claim 33, wherein the siRNA is a double stranded oligoribonucleotide wherein one strand comprises consecutive nucleotides having, from 5' to 3', the sequence set forth in any of SEQ ID NOS:25-45 or SEQ ID NO:67 or a homolog thereof and wherein a base is altered in up to 2 of the nucleotides in each terminal region.
35. (New) The method of claim 33, wherein the siRNA has a sequence selected from the group SEQ ID NOS:1-2, 4-6, 14-16, and 18-22 which are set forth in Table 1.
36. (New) The method of claim 30, wherein the disease is a stroke.
37. (New) An oligonucleotide comprising consecutive nucleotides, the sequence of which is set forth in any of SEQ ID NOS:3-45 or SEQ ID NO:67.
38. (New) A vector comprising an oligonucleotide of claim 37.
39. (New) A pharmaceutical composition comprising an oligonucleotide of claim 37 and a pharmaceutically acceptable carrier.

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40. (New) A pharmaceutical composition comprising a vector of claim 37 and a pharmaceutically acceptable carrier.
41. (New) The method of claim 31, wherein the disease is a stroke.
42. (New) The method of claim 32, wherein the disease is a stroke.
43. (New) The method of claim 33, wherein the disease is a stroke.
44. (New) The method of claim 34, wherein the disease is a stroke.
45. (New) The method of claim 35, wherein the disease is a stroke.